

## Change in Washington Earnings, 1989-1999: A Report Based on the Census

RESEARCH BRIEF NO. 27E

August 2004

## How Change in Earnings is Computed

*Erica Gardner*

Data on earnings in the State of Washington were obtained from the five percent Public Use Microdata Sample (PUMS) for 1990 and 2000. Earnings include wage, salary, commission, bonus, and tip income from all jobs before deductions and/or net income from self-employment. The unadjusted mean earnings for Washington State residents aged 18 to 64 in 1989 and 1999 are shown in Figure 1. Figure 1 shows that the mean income in 1999 was nearly \$10,000 more than it was in 1989.

### The Problem with Unadjusted Earnings

Comparing unadjusted earnings across time is problematic because the earning comparisons do not account for changes in the purchasing power of the dollar. Typically items cost more in the present than they did in the past due to inflation. In other words, a person earning \$20,000 in 1989 can buy more than a person earning \$20,000 in 1999.

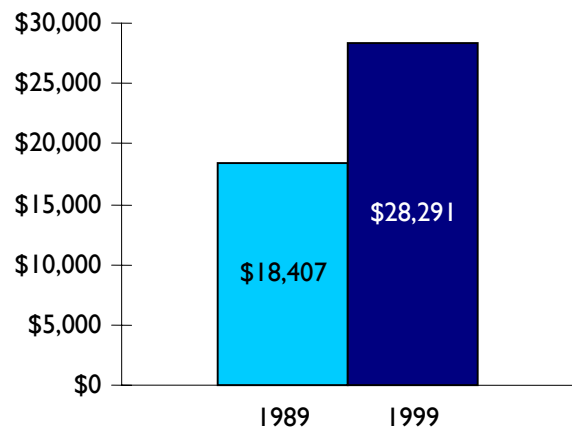
So in order to obtain a meaningful comparison of earnings between 1989 and 1999, one has to inflate 1989 earnings into 1999 dollars. Using an inflation factor<sup>1</sup> to adjust for inflation, one finds that a person earning \$20,000 in 1989 earned the equivalent of \$25,568 in 1999 dollars.

The adjusted mean earnings for Washington State are shown in Figure 2. Figure 2 shows that the mean earnings for Washington State residents aged 18 to 64 increased 20 percent over the ten-year period, from \$23,532 in 1989 to \$28,291 in 1999.

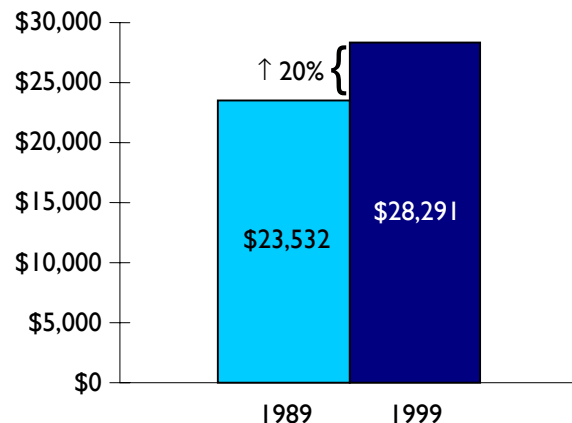
### Annual rate of growth

The annual rate of growth in mean earnings from 1989 to 1999 was 1.86 percent.

**1 – Washington State's Mean Earnings  
(unadjusted for inflation): 1989-1999**



**2 – Washington State's Mean Earnings  
(adjusted for inflation): 1989-1999**



<sup>1</sup> The inflation factor used is the Chain-Weight Implicit Price Deflator for Personal Consumption Expenditures; page 102: <http://www.erfc.wa.gov/pubs/novo3pub.pdf>